

- 1 1. A trainable system for automatically transferring data between multiple existing
2 applications, comprising:
3
4 a shaper computer operating a trainable user interface translator
5 application and storing a shaper rule set and a list of control variables
6 identifying data to be transferred;
7
8 a training terminal electrically connected to the shaper computer for
9 establishing the shaper rule set the list of control variables during a
10 training session;
11
12 a first host computer electrically connected to the shaper computer, and
13 operating at least one first host application, thereby generating data
14 streams that may be monitored by the shaper computer;
15
16 a second host computer electrically connected to the shaper computer, and
17 operating at least one second host application, thereby generating data
18 streams that may be monitored by the shaper computer;
19
20 wherein the shaper computer monitors the data streams of the at least one
21 first host application and, according to the shaper rule set and list of
22 control variables established during the training session, reinterprets and
23 transmits automatically the data identified by the control variables to the at
24 least one second host application.
25
26 2. The trainable system of claim 1, wherein the first host computer is a remote host
27 computer operating a remote host application.
28

- 1 3. The trainable system of claim 1, wherein both the first host computer and the
2 second host computer are remote host computers.
3
- 4 4. The trainable system of claim 1, wherein the first host computer and second host
5 computer are the same computer operating the at least one first host application
6 and at least one second host application.
7
- 8 5. The trainable system of claim 1, further comprising a plurality of first host
9 computers electrically connected to the shaper computer and operating at least
10 one first host application.
11
- 12 6. The trainable system of claim 1, further comprising an auxiliary storage device
13 electrically connected to the shaper computer for storage and retrieval of training
14 data sets to be employed during the training session.
15
- 16 7. The trainable system of claim 1, wherein the first host computer further comprises
17 a first storage device containing data associated with the at least one first host
18 application.
19
- 20 8. In a trainable system comprising a shaper computer operating a trainable user
21 interface translator application and storing a shaper rule set and control variables,
22 a training terminal electrically connected to the shaper computer, a first host
23 computer electrically connected to the shaper computer and operating at least one
24 first host application, and a second host computer electrically connected to the
25 shaper computer and operating at least one second host application, a method of
26 training the trainable system to transfer data between multiple host applications,
27 comprising the steps of:
28

1 operating the trainable user interface translator application via the training
2 terminal to define and store input and output variables associated with
3 each step embodied in the business logic of the at least one first host
4 application;

5
6 defining one or more control variables identifying data to be transferred
7 between the at least one first host application and at least one second host
8 application via the training terminal;

9
10 selecting sample data values for the control variables;

11
12 starting a training mode on the training terminal;

13
14 exercising the at least one first host application via the training terminal
15 with the sample data values to obtain resultant output data, while storing
16 the sequence of steps for exercising the at least one first host application in
17 the shaper rule set;

18
19 storing the resultant output data in temporary storage;

20
21 exercising the at least one second host application via the training terminal
22 with the resultant output data which may produce secondary output data,
23 while storing the sequence of steps for exercising the at least one second
24 host application in the shaper rule set;

25
26 storing secondary output data, if any;

27
28 determining if the trainable system is fully trained to accommodate
29 business processes associated with transferring data between the at least

one first host application and at least one second host application, and if not, reverting to the step of exercising the at least one first host application; and

determining if there are additional sample data values to process, and if so, reverting to the step of exercising the at least one first host application.

9. The method of claim 8, wherein the first host computer is a remote host computer operating a remote host application.

10. The method of claim 8, wherein both the first host computer and the second host computer are remote host computers.

11. The method of claim 8, wherein the first host computer and second host computer are the same computer operating the at least one first host application and at least one second host application.

12. The method of claim 8, wherein the trainable system further comprises a plurality of first host computers electrically connected to the shaper computer and operating at least one first host application.

13. The method of claim 8, wherein the trainable system further comprises an auxiliary storage device electrically connected to the shaper computer for storage and retrieval of training data sets to be employed during the training session.

14. The method of claim 8, wherein the first host computer further comprises a first storage device containing data associated with the at least one first host application.

1 15. In a trained system comprising a shaper computer operating a trainable user
2 interface translator application and storing a shaper rule set, a training terminal
3 electrically connected to the shaper computer, a first host computer electrically
4 connected to the shaper computer and operating at least one first host application,
5 and a second host computer electrically connected to the shaper computer and
6 operating at least one second host application, a method of using the trained
7 system to automatically transfer data between multiple host applications,
8 comprising the steps of
9

10 generating and storing via the training terminal a list of control variables
11 identifying data to be transferred from the at least one first host application
12 to the at least one second host application; and
13

14 starting via the training terminal the trainable user interface application in
15 automatic mode, causing the trainable user interface translator application
16 to survey the list of control variables and exercise the at least one first host
17 application and at least one second host application in accordance with the
18 shaper rule set, thereby transferring the identified data.
19

20 16. In a trainable system comprising a shaper computer operating a trainable user
21 interface translator application and storing a shaper rule set, a training terminal
22 electrically connected to the shaper computer, a first host computer electrically
23 connected to the shaper computer and operating at least one first host application,
24 and a second host computer electrically connected to the shaper computer and
25 operating at least one second host application, a method of training the trainable
26 system to generate a list of control values, comprising the steps of:
27

1 defining and storing via the training terminal one or more control variables
2 associated with each step embodied in the business logic of either the at
3 least one first host application or at least one second host application;
4
5 starting via the training terminal the trainable user interface translator
6 application in training mode;
7
8 exercising via the training terminal the at least one first host application to
9 generate a list of control variables; and
10
11 storing the list of control variables.

12
13 17. The method of claim 16, wherein the list of control variables are stored on an
14 auxiliary storage device.

15
16 18. A trainable system for migrating data from an existing application to a storage
17 format accessible to other applications, comprising:

18
19 a shaper computer operating a trainable user interface translator
20 application and storing a shaper rule set and a list of control variables
21 identifying data to be transferred;

22
23 a training terminal electrically connected to the shaper computer for
24 establishing the shaper rule set the list of control variables during a
25 training session;

26
27 a host computer electrically connected to the shaper computer, and
28 operating at least one host application, thereby generating data streams
29 that may be monitored by the shaper computer;

1
2 an auxiliary storage device electrically connected to the shaper computer
3 for receiving data transferred from the at least one host application;
4

5 wherein the shaper computer monitors the data streams of the at least one
6 host application and, according to the shaper rule set and list of control
7 variables established during the training session, reinterprets and transmits
8 automatically the data identified by the control variables to the auxiliary
9 storage device.
10

11 19. The trainable system of claim 18, wherein the host computer is a remote host
12 computer operating a remote host application.
13

14 20. In a trainable system comprising a shaper computer operating a trainable user
15 interface translator application and storing a shaper rule set and control variables,
16 a training terminal electrically connected to the shaper computer, a host computer
17 electrically connected to the shaper computer and operating at least one host
18 application, and an auxiliary storage device electrically connected to the shaper
19 computer, a method of training the trainable system to migrate data from an
20 existing application to a storage format accessible to other applications,
21 comprising the steps of:
22

23 operating the trainable user interface translator application via the training
24 terminal to define and store input and output variables associated with
25 each step embodied in the business logic of the at least one host
26 application;
27

1 defining and storing via the training terminal one or more control variables
 2 identifying data to be transferred between the at least one host application
 3 and the auxiliary storage device;

4
 5 selecting sample data values for the control variables;

6
 7 starting the user interface translator application in training mode;

8
 9 exercising the at least one host application via the training terminal with
 10 the sample data values to obtain resultant output data, while storing the
 11 sequence of steps for exercising the at least one host application in the
 12 shaper rule set;

13
 14 storing the resultant output data in the auxiliary storage device;

15
 16 determining if the trainable system is fully trained to accommodate
 17 business processes associated with migrating data between the at least one
 18 host application and the auxiliary storage device, and if not, reverting to
 19 the step of exercising the at least one host application; and

20
 21 determining if there are additional sample data values to process, and if so,
 22 reverting to the step of exercising the at least one host application.

23
 24 21. The method of claim 20, wherein the host computer is a remote host computer
 25 operating at least one remote host application.

26
 27 22. In a trained system comprising a shaper computer operating a trainable user
 28 interface translator application and storing a shaper rule set and control variables,
 29 a training terminal electrically connected to the shaper computer, a host computer

1 electrically connected to the shaper computer and operating at least one host
2 application, and an auxiliary storage device electrically connected to the shaper
3 computer, a method of using the trained system to migrate data from an existing
4 application to a storage format accessible to other applications, comprising the
5 steps of:

6
7 generating and storing on the auxiliary storage device via the training
8 terminal a list of control variables identifying data to be transferred from
9 the at least one host application to the auxiliary storage device; and

10
11 starting via the training terminal the trainable user interface application in
12 automatic mode, causing the trainable user interface translator application
13 to survey the list of control variables and exercise the at least one first host
14 application and at least one second host application in accordance with the
15 shaper rule set, thereby migrating the identified data.

16
17 23. The method of claim 22, wherein the host computer is a remote host computer
18 operating at least one remote host application.

19
20 24. In a trainable system comprising a shaper computer operating a trainable user
21 interface translator application and storing a shaper rule set, a training terminal
22 electrically connected to the shaper computer, a host computer electrically
23 connected to the shaper computer and operating at least one host application, and
24 an auxiliary storage device electrically connected to the shaper computer, a
25 method of training the trainable system to pre-fetch a list of control values,
26 comprising the steps of:

1 defining and storing via the training terminal one or more control variables
2 associated with each step embodied in the business logic of the at least one
3 host application and identifying the data to be migrated;
4
5 starting via the training terminal the trainable user interface translator
6 application in training mode;
7
8 exercising via the training terminal the at least one host application to
9 generate a list of control variables; and
10
11 storing the list of control variables in the auxiliary storage device.

12
13 25. The method of claim 24, wherein the host computer is a remote host computer
14 operating at least one remote host application.

15
16 26. A trainable system for migrating data from a particular storage format to an
17 existing application that cannot otherwise access the data:

18
19 a shaper computer operating a trainable user interface translator
20 application and storing a shaper rule set and a list of control variables
21 identifying data to be transferred;

22
23 a training terminal electrically connected to the shaper computer for
24 establishing the shaper rule set the list of control variables during a
25 training session;

26
27 a host computer electrically connected to the shaper computer, and
28 operating at least one first host application;

1 an auxiliary storage device electrically connected to the shaper computer,
2 from which input data files may be retrieved by the shaper computer, the
3 data files being otherwise inaccessible to the at least one host application;
4

5 wherein the shaper computer, according to the shaper rule set established
6 during the training session, retrieves input data files from the auxiliary
7 storage device and migrates the input data files to the at least one host
8 application.
9

10 27. The trainable system of claim 26, wherein the host computer is a remote host
11 computer operating at least one remote host application.
12

13 28. In a trainable system comprising a shaper computer operating a trainable user
14 interface translator application and storing a shaper rule set, a training terminal
15 electrically connected to the shaper computer, a host computer electrically
16 connected to the shaper computer and operating at least one host application, and
17 an auxiliary storage device electrically connected to the shaper computer, a
18 method of training the trainable system to migrate data from a particular storage
19 format to an existing application, comprising the steps of:
20

21 associating input values where used in the host application;
22

23 copying via the training terminal a test input file from a stored location to
24 the auxiliary storage device;
25

26 starting the trainable user interface translator application in training mode;
27

28 exercising the at least one host application via the training terminal with a
29 first record of the test input file to migrate the first record to the at least

1 one host application, while recording the sequence of steps for exercising
2 the at least one host application in the shaper rule set;

3
4 exercising the at least one host application via the training terminal with a
5 next record of the test input file to migrate the next record to the at least
6 one host application, utilizing and refining the shaper rule set to migrate
7 the next record; and

8
9 determining if there are additional records in the test input file, and if so,
10 reverting to the previous step.

11
12 29. The method of claim 28, wherein the host computer is a remote host computer
13 operating at least one remote host application.

14
15 30. In a trained system comprising a shaper computer operating a trainable user
16 interface translator application and storing a shaper rule set, a training terminal
17 electrically connected to the shaper computer, a host computer electrically
18 connected to the shaper computer and operating at least one host application, and
19 an auxiliary storage device electrically connected to the shaper computer, a
20 method of using the trained system of the first or second aspects to migrate data
21 from a particular storage format to an existing application, including the steps:

22
23 copying an input file from a source to the auxiliary storage device; and

24
25 starting the trainable user interface translator application in a normal run
26 mode, causing the trainable user interface translator application to execute
27 the shaper rule set thereby migrating the input file from the auxiliary
28 storage device to the at least one host application.